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ABSTRACT

A questionnaire was designed and circulated to all member libraries of the Texas Information Exchange to gather data associated with the costs and volume of interlibrary loan activity from September 1, 1975 to February 28, 1976. Forty of the forty-five members of the Exchange participated in the study. In the area of costs, information was collected for the costs of supplies, transmitting requests, postage, courier service, salaries, and cost per transaction. For volume, an attempt was made to measure the total activity: transactions within the network versus transactions outside the network; filled versus unfilled transactions; loan requests versus photocopy requests; and borrowing versus lending transactions. Data obtained from the study is presented in tabular form arranged alphabetically by library. A comparison of public and academic libraries for costs and volume follows, with a summary of findings and suggestions for further study concluding the report. (JPF)

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A STUDY OF INTERLIBRARY LOAN TRANSACTIONS IN THE TEXAS INFORMATION EXCHANGE FROM SEPTEMBER 1, 1975 TO FEBRUARY 29, 1976

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TEXAS INFORMATION EXCHANGE INTERLIBRARY LOAN COST-STUDY COMMITTEE

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A STUDY OF INTERLIBRARY LOAN TRANSACTIONS IN THE TEXAS INFORMATION EXCHANGE

I. Introduction

This study was funded by the College and University Libraries Division of the Texas Library Association in a grant to the Texas Information Exchange for the purpose of developing basic information about the costs of interlibrary loan services in Texas. The time period of the study is from September 1, 1975 to February 29, 1976. Forty of the forty-five members of the Exchange participated in the study. North Texas State University, Prairie View A&M University, Texas Eastern University, and the University of Texas Health Science Center at San Antonio did not participate. The University of Texas Dental Branch supplied incomplete data and could not be included. Baylor University could not supply salary data but was able to supply complete data for all other areas of the study; thus while Baylor is not included in the cost-study, it is included in all parts of the study that are concerned with the volume of interlibrary loan activity.

II. Methodology

Information for the study was gained by circulating a questionnaire to all the members of the Texas Information Exchange. The questionnaire was designed to gather information in two areas: costs and volume of activity. In the area of costs, information was sought for the costs of supplies, costs of transmitting requests, costs of postage, costs of courier service and costs of salaries. These were felt to be the direct costs of interlibrary loan services. While there are several other areas of cost, such as heating, air conditioning, lighting, equipment, and bibliographic tools, it was not felt to be possible within the scope of this study to ascertain the portion of these costs that are attributable to interlibrary loan. these costs were thus not considered.

In gathering information about the volume of interlibrary loan tranactions, an attempt was made to measure the total activity; all transactions, both filled and unfilled, both within and without the network. This information was broken down into the following categories: transactions within the network versus transactions outside the network; filled versus unfilled transactions, loan requests versus photocopy requests; and borrowing versus lending transactions.

It is important to recognize that the volume of activity does not refer merely to the total number of books and photocopy actually exchanged among the libraries. In this study, each separate bibliographical citation is considered one request. Each request, however, whether filled or unfilled, involves two transactions--a borrowing transaction and a lending transaction. Cost is incurred by both the borrowing and the lending library. Since this study attempts to measure the cost per transaction at the individual library, both transactions are counted for TIE transactions. In transactions between a TIE library and a library that is not a member of TIE, only the transaction involving the TIE member is counted. Thus there were almost 158,000 transactions counted in arriving at the cost per transaction while there were less than 80,000 items actually exchanged among libraries.

The Texas Information Exchange has centralized billing, wherein all members report transactions done within the network to its fiscal agent, the Regional Information and Communications Exchange at Rice University in Houston. The questionnaire used the information gathered by the fiscal agent for all transactions done within the network. Transactions done outside the network were reported separately by the membership.

Information gained from the questionnaires was checked for accuracy and tabulated into the charts given in Part III of the study. A summary of results is given in Part IV and suggestions for further study are given in Part V.

PART III. CHARTS

Chart

1. Costs [a,b,c]
2. TIE-NON-TIE Transactions
3. Filled-Unfilled Transactions-TIE
4. Filled-Unfilled Transactions-NON-TIE [a]
5. Filled-Unfilled Transactions-All Transactions [a]
6. Books-Photocopy
7. Borrowing-Lending Ratios
8. Comparison of Public and Academic Libraries

a NON-TIE unfilled transactions not included for SMU, Texas Tech, UT Dallas, UT Medical Branch-Galveston.

b Telephone costs not included for Texas Tech, UT Dallas

c Mailed requests costs not included for SMU

COSTS-(Chart 1)

LIBRARY	SUPPLIES	(%)	REQUESTS	(%)	POSTAGE	(%)	COURIER	(%)	SALARIES	(%)	TOTAL COSTS	TRANSACTIONS (Total)	TRANSACTIONS (Filled)	COST PER TRANSACTION (Total TR)	COST PER TRANSACTION (Filled TR)
Abilene Public	391	.046	1043	.124	189	.022	0		6818	.808	8441	2631	1611	3.21	5.20
Amarillo Public	467	.048	1372	.141	201	.021	0		7693	.790	9733	2835	1796	3.43	5.41
Angelo State	73	.037	716	.361	82	.041	0		1113	.561	1984	579	415	3.43	4.78
Austin College	105	.063	550	.329	157	.094	0		858	.514	1670	790	600	2.11	2.78
Austin Public	708	.038	2333	.125	285	.015	0		15369	.822	18695	4526	2482	4.13	7.53
Dallas Public	1229	.047	3078	.118	487	.019	0		21374	.817	26168	7522	4301	3.48	6.08
East Texas State	261	.025	1059	.103	83	.008	360	.035	8544	.829	10307	1673	923	6.16	11.16
El Paso Public	279	.030	1701	.185	107	.012	0		7097	.773	9184	1866	983	4.92	9.34
Fort Worth Public	889	.037	1943	.080	379	.016	0		21068	.868	24279	5470	3445	4.44	7.04
Houston Acad. Of Med.	2379	.114	1516	.073	736	.035	800	.038	15457	.740	20888	10503	8740	1.99	2.38
Houston Public	1538	.040	3491	.090	599	.015	0		33197	.855	38825	8671	5326	4.48	7.28
Lamar	352	.045	976	.126	302	.039	0		6108	.789	7738	2058	1561	3.76	4.95
La Retama Public	813	.044	2928	.160	325	.018	0		14255	.778	18321	5407	2955	3.39	6.20
Lubbock City-County	362	.033	1500	.135	144	.013	0		9099	.819	11105	2616	1306	4.25	8.50
Midwestern	218	.027	942	.116	89	.011	0		6844	.846	8093	1341	940	6.04	8.60
Pan American	82	.015	847	.158	46	.009	0		4388	.818	5363	651	452	8.24	11.86
Rice	1074	.065	1603	.098	582	.035	0		13161	.802	16420	5925	4133	2.77	3.97
Sam Houston State	105	.016	874	.137	199	.031	0		5219	.816	6397	1029	744	6.22	8.59
San Antonio Public	779	.051	2130	.138	314	.020	0		12198	.791	15421	4237	2650	3.64	5.81
Southern Methodist	552	.024	1227	.053	229	.010	360	.015	20864	.898	23232	3952	2330	5.88	9.97
Southwest Texas State	125	.009	856	.064	117	.009	0		12284	.918	13382	829	619	16.14	21.61
Stephen F. Austin	255	.032	1197	.148	122	.015	0		6509	.805	8083	1744	1152	4.63	7.01
Texas A&M	3469	.096	2226	.062	1141	.032	0		29136	.810	35972	14534	9510	2.48	3.78
Texas Christian	566	.057	1590	.159	163	.016	360	.036		.732	10005	3541	2075	2.83	4.82
Texas Southern	30	.009	1476	.459	12	.004	0		1700	.528	3218	205	142	15.70	22.66
Texas State Library	1269	.026	5183	.107	404	.008	0		41499	.858	48355	11287	3899	4.28	12.40
Texas Tech	857	.053	1794	.111	233	.014	0		13342	.822	16226	4631	2796	3.50	5.80
Texas Woman's University	408	.050	1236	.152	116	.014	360	.044	5987	.738	8107	2485	1446	3.26	5.60
University of Houston	1115	.060	1733	.093	540	.029	900	.048	14352	.770	18640	5873	4236	3.17	4.40
UT Arlington	706	.051	1993	.145	390	.028	360	.026	10297	.749	13746	4659	2857	2.95	4.81
UT Austin	3032	.050	2908	.048	2702	.038	0		52823	.865	61065	12668	8180	4.82	7.46
UT Dallas	577	.061	2099	.222	628	.066	360	.038	5802	.613	9466	2449	2230	3.87	4.24
UT El Paso	325	.038	1236	.143	80	.010	96	.011	6893	.798	8639	1601	1264	5.40	6.83
UT Permian Basin	62	.012	1383	.271	18	.004	0	.	3647	.714	5110	351	260	14.56	19.65
UT San Antonio	103	.028	344	.093	38	.010	1928	.519	1299	.350	3712	828	594	4.48	6.24
UT HSC Dallas	1858	.093	2507	.125	454	.023	360	.018	14882	.742	20061	7603	5514	2.64	3.63
UT M.D. Anderson	440	.080	949	.172	30	.005	0		4089	.742	5508	2928	2656	1.88	2.07
UT Med. Br. Galveston	1034	.094	1401	.127	374	.034	0		8201	.745	11010	4454	4120	2.47	2.67
West Texas State	169	.021	1371	.173	63	.008	0		6320	.798	7923	943	637	8.40	12.43
TOTAL	29056	.049	65311	.111	12769	.022	6244	.011*	477112	.808	590492	157895	102865	3.74	5.74

*NOTE: The network average for courier service is .011,but when only those who actually have it are included, the percentage is .044.

TIE-NON-TIE TRANSACTIONS- (Chart 2)

LIBRARY	TIE	(%)	NON-TIE	(%)	TOTAL
Abilene Public	2094	.796	537	.204	2631
Amarillo Public	2019	.712	816	.288	2835
Angelo State	533	.921	46	.079	579
Austin College	695	.880	95	.120	790
Austin Public	3424	.757	1102	.243	4526
Baylor	871	.554	700	.446	1571
Dallas Public	5409	.719	2113	.281	7522
East Texas State	1268	.758	405	.242	1673
El Paso Public	1476	.791	390	.209	1866
Fort Worth Public	3961	.724	1509	.276	5470
Houston Acad. of Med.	4063	.387	6440	.613	10503
Houston Public	5593	.645	3078	.355	8671
Lamar	1397	.679	661	.321	2058
La Retama Public	4257	.787	1150	.213	5407
Lubbock City-County	2222	.849	394	.151	2616
Midwestern	967	.721	374	.279	1341
Pan American	595	.914	56	.086	651
Rice	3706	.625	2219	.375	5925
Sam Houston State	839	.815	190	.185	1029
San Antonio Public	2590	.611	1647	.389	4237
Southern Methodist	3334	.844	618	.156	3952
Southwest Texas State	653	.788	176	.212	829
Stephen F. Austin	1415	.811	329	.189	1744
Texas A&M	4691	.323	9843	.677	14534
Texas Christian	2611	.737	930	.263	3541
Texas Southern	169	.824	36	.176	205
Texas State Library	11139	.987	148	.013	11287
Texas Tech	2378	.545	1983	.455	4361
Texas Woman's Univ.	1779	.716	706	.284	2485
University of Houston	3408	.580	2465	.420	5873
UT Arlington	3638	.781	1021	.219	4659
UT Austin	4269	.337	8399	.663	12668
UT Dallas	829	.339	1620	.661	2449
UT El Paso	817	.510	784	.490	1601
UT Permian Basin	227	.647	124	.353	351
UT San Antonio	765	.924	63	.076	828
UT HSC Dallas	2227	.293	5376	.707	7603
UT M.D. Anderson	2308	.788	620	.212	2928
UT Med. Br. Galveston	1592	.357	2862	.643	4454
West Texas State	601	.637	342	.363	943
TOTAL	97695	.608	62963	.392	160658

Filled-Unfilled Transactions - TIE-(Chart 3)

Library	Borrowing Filled	(%)	Unfilled	(%)	Total	Lending Filled	(%)	Unfilled	(%)	Total	Total Filled	(%)	Unfilled	(%)	Total
Abilene Public	422	.485	448	.515	870	697	.569	527	.431	1224	1119	.534	975	.466	2094
Amarillo Public	529	.454	637	.546	1166	455	.533	398	.467	853	984	.398	1035	.418	2019
Angelo State	185	.626	111	.374	297	199	.843	37	.157	236	385	.722	148	.278	533
Austin College	164	.781	46	.219	210	363	.748	122	.252	485	527	.758	168	.242	695
Austin Public	1210	.436	1566	.564	2776	181	.279	467	.721	648	1391	.406	2033	.594	3424
Baylor	201	.681	94	.319	295	306	.531	270	.469	576	507	.582	364	.418	871
Dallas Public	1353	.410	1943	.590	3296	954	.451	1159	.549	2113	2307	.427	3102	.573	5409
East Texas State	538	.496	546	.504	1084	96	.522	88	.478	184	634	.500	634	.500	1268
El Paso Public	385	.480	417	.520	802	280	.415	394	.585	674	665	.451	811	.549	1476
Fort Worth Public	903	.453	1089	.547	1992	1066	.541	903	.459	1969	1969	.497	1992	.503	3961
Houston Acad. of Med.	1009	.666	507	.334	1516	2297	.902	250	.098	2547	3306	.814	757	.186	4063
Houston Public	1700	.436	2195	.564	3895	700	.412	998	.588	1698	2400	.429	3193	.571	5593
Lamar	285	.594	195	.406	480	684	.746	233	.254	917	969	.694	428	.306	1397
La Retama Public	1284	.404	1898	.596	3182	532	.495	543	.505	1075	1816	.427	2441	.573	4257
Lubbock City-County	765	.439	979	.561	1744	151	.316	327	.684	478	916	.412	1306	.588	2222
Midwestern	549	.675	264	.325	813	136	.883	18	.117	154	685	.708	282	.292	967
Pan American	421	.708	174	.292	595	-0-	.	-0-		-0-	421	.708	174	.292	595
Rice	678	.740	238	.260	916	1775	.636	1015	.364	2790	2453	.662	1253	.338	3706
Sam Houston State	300	.693	133	.307	433	300	.739	106	.261	406	600	.715	239	.285	839
San Antonio Public	692	.419	960	.581	1652	328	.350	610	.650	938	1020	.394	1570	.606	2590
Southern Methodist	484	.597	327	.403	811	1300	.515	1223	.485	2523	1784	.535	1550	.465	3334
Southwest Texas State	220	.741	77	.259	297	265	.744.	91	.256	356	485	.743	168	.257	653
Stephen F. Austin	632	.714	253	.286	885	371	.700	159	.300	530	1003	.709	412	.291	1415
Texas A&M	1556	.631	911	.369	2467	1550	.697	674	.303	2224	3106	.662	1585	.338	4691
Texas Christian	424	.670	209	.330	633	953	.482	1025	.518	1978	1377	.527	1234	.473	2611
Texas Southern	111	.766	34	.234	145	9	.375	15	.625	24	120	.710	49	.290	169
Texas State Library	1198	.384	1925	.616	3123	2576	.321.	5440	.679	8016	3774	.339	7365	.661	11139
Texas Tech	767	.619	472	.381	1239	544	.478	595	.522	1139	1311	.551	1067	.449	2378
Texas Woman's Univ.	365	.644	202	.356	567	670	.553	542	.447	1212	1035	.582	744	.418	1779
University of Houston	1007	.805	244	.195	1251	1171	.543	986	.457	2157	2178	.639	1230	.361	3408
UT Arlington	935	.525	847	.475	1782	1119	.603	737	.397	1856	2054	.565	1584	.435	3638
UT Austin	485	.743	168	.257	653	2095	.579	1521	.421	3616	2580	.604	1689	.396	4269
UT Dallas	594	.739	210	.261	804	16	.640	9	.360	25	610	.736	219	.264	829
UT El Paso	415	.761	130	.239	545	161	.592	111	.408	272	576	.705	241	.295	817
UT Permian Basin	146	.643	81	.357	227	-0-		-0-		-0-	146	.643	81	.357	227
UT San Antonio	498	.692	222	.308	720	37	.822	8	.178	45	535	.699	230	.301	765
UT HSC Dallas	456	.676	219	.324	675	997	.642	555	.358	1552	1453	.652	774	.348	2227
UT M.D. Anderson	1464	.881	198	.119	1662	607	.940	39	.060	646	2071	.897	237	.103	2308
UT Med. Br. Galveston	703	.782	196	.218	899	642	.926	51	.074	693	1345	.845	247	.155	1592
West Texas State	367	.691	164	.309	531	54	.771	16	.229	70	421	.700	180	.300	601
TOTALS	26401	.551	21529	.449	47930	26637	.545	22262	.455	48899	53038	.548	43791	.452	96829

Filled-Unfilled Transactions-Non-TIE-(Chart 4)

Library	Borrowing					Lending					Total				
	Filled	(%)	Unfilled	(%)	Total	Filled	(%)	Unfilled	(%)	Total	Filled	(%)	Unfilled	(%)	Total
Abilene Public	44	.957	2	.043	46	448	.912	43	.088	491	492	.916	45	.084	537
Amarillo Public	75	.962	3	.038	78	737	.999	1	.001	738	812	.995	4	.005	816
Angelo State	15	.060	10	.040	25	15	.714	6	.286	21	30	.652	16	.348	46
Austin College	17	.773	5	.227	22	56	.767	17	.233	73	73	.768	22	.232	95
Austin Public	37	.860	6	.140	43	1054	.995	5	.005	1059	1091	.990	11	.010	1102
Baylor	173	.695	76	.305	249	305	.676	146	.324	451	478	.683	222	.317	700
Dallas Public	245	.968	8	.032	253	1749	.940	111	.060	1860	1994	.944	119	.056	2113
East Texas State	181	.691	81	.309	262	108	.755	35	.245	143	289	.714	116	.286	405
El Paso Public	59	.952	3	.048	62	259	.790	69	.210	328	318	.815	72	.185	390
Fort Worth Public	143	.966	5	.034	148	1333	.979	28	.021	1361	1476	.978	33	.022	1509
Houston Acad. of Med.	311	.336	614	.664	925	5123	.929	392	.071	5515	5434	.844	1006	.156	6440
Houston Public	93	.921	8	.079	101	2833	.952	144	.048	2977	2926	.951	152	.049	3078
Lamar	89	.848	16	.152	105	503	.905	53	.095	556	592	.896	69	.104	661
La Retama Public	71	.899	8	.101	79	1068	.997	3	.003	1071	1139	.990	11	.010	1150
Lubbock City-County	44	.917	4	.083	48	346	1.000	-0-	.000	346	390	990	4	.010	394
Midwestern	210	.648	114	.352	324	45	.900	5	.100	50	255	.682	119	.318	374
Pan American	28	.528	25	.472	53	3	1.000	-0-	1.000	3	31	.554	25	.446	56
Rice	130	.514	123	.486	253	1550	.788	416	.212	1966	1680	.757	539	.243	2219
Sam Houston State	105	.734	38	.266	143	39	.830	8	.170	47	144	.758	46	.242	190
San Antonio Public	54	.915	5	.085	59	1576	.992	12	.008	1588	1630	.990	17	.010	1647
Southern Methodist	188	----	NA	----	188	358	.833	72	.167	430	546	.883	72	.117	618
Southwest Texas State	86	.768	26	.232	112	48	.750	16	.250	64	134	.761	42	.239	176
Stephen F. Austin	116	.399	175	.601	291	33	.868	5	.132	38	149	.453	180	.547	329
Texas A&M	771	.600	515	.400	1286	5633	.658	2924	.342	8557	6404	.651	3439	.349	9843
Texas Christian	213	.777	61	.223	274	485	.739	171	.261	656	698	.751	232	.249	930
Texas Southern	-0-		-0-		-0-	22	.611	14	.389	36	22	.611	14	.389	36
Texas State Library	64	.985	1	.015	65	61	.735	22	.265	83	125	.845	23	.155	148
Texas Tech	699	.584	498	.416	1197	786	----	NA	----	786	1485	.749	498	.251	1983
Texas Woman's Univ.	127	.564	98	.436	225	284	.590	197	.410	481	411	.582	295	.418	706
University of Houston	250	.744	86	.256	336	1808	.849	321	.151	2129	2058	.835	407	.165	2465
UT Arlington	256	.646	140	.354	396	547	.875	78	.125	625	803	.786	218	.214	1021
UT Austin	1680	.877	235	.123	1915	3920	.605	2564	.395	6484	5600	.667	2799	.333	8399
UT Dallas	1440	----	NA	----	1440	180	----	NA	----	180	1620	----	NA	----	1620
UT El Paso	506	.937	34	.063	540	182	.746	62	.254	244	688	.878	96	.122	784
UT Permian Basin	38	.905	4	.095	42	76	.927	6	.073	82	114	.919	10	.081	124
UT San Antonio	15	.882	2	.118	17	44	.957	2	.043	46	59	.937	4	.063	63
UT HSC Dallas	561	.685	258	.315	819	3500	.768	1057	.232	4557	4061	.755	1315	.245	5376
UT M.D. Anderson	177	.983	3	.017	180	408	.927	32	.073	440	585	.944	35	.056	620
UT Med. Br. Galveston	806	----	NA	----	806	1969	.958	87	.042	2056	2775	.970	87	.030	2862
West Texas State	131	.587	92	.413	223	85	.714	34	.286	119	216	.632	126	.368	342
Totals	10248	.752	3382	.248	13630	37579	.812	9158	.188	48737	49827	.799	12540	.201	62367

Filled-Unfilled Transactions-All Transactions-(Chart 5)

Library	Borrowing					Lending					Total				
	Filled	(%)	Unfilled	(%)	Total	Filled	(%)	Unfilled	(%)	Total	Filled	(%)	Unfilled	(%)	Total
Abilene Public	466	.509	450	.491	916	1145	.668	570	.332	1715	1611	.612	1020	.388	2631
Amarillo Public	604	.486	640	.514	1244	1192	.749	399	.251	1591	1796	.634	1039	.366	2835
Angelo State	201	.624	121	.376	322	214	.833	43	.167	257	415	.717	164	.283	579
Austin College	181	.780	51	.220	232	419	.751	139	.249	558	600	.759	190	.241	790
Austin Public	1247	.442	1572	.558	2819	1235	.723	472	.277	1707	2482	.548	2044	.452	4526
Baylor	374	.693	170	.307	544	611	.595	416	.405	1027	985	.627	586	.373	1571
Dallas Public	1598	.450	1951	.550	3549	2703	.680	1270	.320	3973	4301	.572	3221	.428	7522
East Texas State	719	.534	627	.466	1346	204	.624	123	.376	327	923	.552	750	.448	1673
El Paso Public	444	.514	420	.486	864	539	.538	463	.462	1002	983	.527	883	.473	1866
Fort Worth Public	1046	.489	1094	.511	2140	2399	.720	931	.280	3330	3445	.630	2025	.370	5470
Houston Acad. of Med.	1320	.541	1121	.459	2441	7420	.920	642	.080	8062	8740	.832	1763	.168	10503
Houston Public	1793	.449	2203	.551	3996	3533	.756	1142	.244	4675	5326	.614	3345	.386	8671
Lamar	374	.639	211	.361	585	1187	.806	286	.194	1473	1561	.759	497	.241	2058
La Retama Public	1355	.416	1906	.584	3261	1600	.746	546	.254	2146	2955	.547	2452	.453	5407
Lubbock City-County	809	.451	983	.549	1792	497	.603	327	.397	824	1306	.499	1310	.501	2616
Midwestern	759	.668	378	.332	1137	181	.887	23	.113	204	940	.701	401	.299	1341
Pan American	449	.693	199	.307	648	3	1.000	0	.000	3	452	.694	199	.306	651
Rice	808	.691	361	.309	1169	3325	.699	1431	.301	4756	4133	.698	1792	.302	5925
Sam Houston State	405	.703	171	.297	576	339	.748	114	.252	453	744	.723	285	.277	1029
San Antonio Public	746	.436	965	.564	1711	1904	.754	622	.246	2526	2650	.625	1587	.375	4237
Southern Methodist	672	.673	327	.327	999	1658	.561	1295	.439	2953	2330	.590	1622	.410	3952
Southwest Texas State	306	.748	103	.252	409	313	.745	107	.255	420	619	.747	210	.253	829
Stephen F. Austin	748	.636	428	.364	1176	404	.711	164	.289	568	1152	.661	592	.339	1744
Texas A&M	2327	.620	1426	.380	3753	7183	.666	3598	.334	10781	9510	.654	5024	.346	14534
Texas Christian	637	.702	270	.298	907	1438	.546	1196	.454	2634	2075	.586	1466	.414	3541
Texas Southern	111	.766	34	.234	145	31	.517	29	.483	60	142	.693	63	.307	205
Texas State Library	1262	.396	1926	.604	3188	2637	.326	5462	.674	8099	3899	.345	7388	.655	11287
Texas Tech	1466	.602	970	.398	2436	1330	.691	595	.310	1925	2796	.641	1565	.359	4361
Texas Woman's Univ.	492	.621	300	.379	792	954	.563	739	.437	1693	1446	.582	1039	.418	2485
University of Houston	1257	.792	330	.208	1587	2979	.695	1307	.305	4286	4236	.721	1637	.279	5873
UT Arlington	1191	.547	987	.453	2178	1666	.672	815	.328	2481	2857	.613	1802	.387	4659
UT Austin	2165	.843	403	.157	2568	6015	.596	4085	.404	10100	8180	.646	4488	.354	12668
UT Dallas	2034	.906	210	.094	2244	196	.956	9	.044	205	2230	.911	219	.089	2449
UT El Paso	921	.849	164	.151	1085	343	.665	173	.335	516	1264	.790	337	.210	1601
UT Permian Basin	184	.684	85	.316	269	76	.927	6	.073	82	260	.741	91	.259	351
UT San Antonio	513	.696	224	.304	737	81	.890	10	.110	91	594	.717	234	.283	828
UT HSC Dallas	1017	.681	477	.319	1494	4497	.736	1612	.264	6109	5514	.725	2089	.275	7603
UT M.D. Anderson	1641	.891	201	.109	1842	1015	.935	71	.065	1086	2656	.907	272	.093	2928
UT Med. Br. Galveston	1509	.885	196	.115	1705	2611	.950	138	.050	2749	4120	.925	334	.075	4454
West Texas State	498	.660	256	.340	754	139	.735	50	.265	189	637	.676	306	.324	943
Totals	36649	.595	24911	.404	61560	66216	.678	31420	.322	97636	102865	.646	56331	.354	159196

BOOKS-PHOTOCOPY-(Chart 6)

Library	TIE Books	(%)	TIE Photocopy	(%)	TIE Total	NON-TIE Books	(%)	NON-TIE Photocopy	(%)	NON-TIE Total	All Transactions Books	(%)	All Transactions Photocopy	(%)	All Transactions Total
Abilene Public	1084	.969	35	.031	1119	464	.943	28	.057	492	1548	.961	63	.039	1611
Amarillo Public	890	.904	94	.096	984	739	.910	73	.090	812	1629	.907	167	.093	1796
Angelo State	325	.844	60	.156	385	19	.633	11	.367	30	344	.829	71	.171	415
Austin College	361	.685	166	.125	527	66	.904	7	.096	73	527	.873	73	.122	600
Austin Public	1294	.930	97	.070	1391	1027	.941	64	.059	1091	2321	.935	161	.065	2482
Baylor	270	.533	237	.467	507	320	.669	158	.331	478	590	.599	395	.401	985
Dallas Public	2055	.891	252	.109	2307	1763	.884	231	.116	1994	3818	.888	483	.112	4301
East Texas State	232	.366	402	.634	634	216	.747	73	.253	289	448	.485	475	.515	923
El Paso Public	589	.886	76	.114	665	278	.874	40	.126	318	867	.882	116	.118	983
Fort Worth Public	1591	.808	378	.192	1969	1243	.842	233	.158	1476	2834	.823	611	.177	3445
Houston Acad. of Med.	982	.297	2324	.703	3306	1413	.260	4021	.740	5434	2395	.274	6345	.726	8740
Houston Public	2071	.863	329	.137	2400	2589	.885	337	.115	2926	4660	.875	666	.125	5326
Lamar	405	.418	564	.582	969	153	.258	439	.742	592	558	.357	1003	.643	1561
La Retama Public	1599	.881	217	.119	1816	1075	.944	64	.056	1139	2674	.905	281	.095	2955
Lubbock City-County	824	.900	92	.100	916	363	.931	27	.069	390	1187	.909	119	.091	1306
Midwestern	396	.578	289	.422	685	87	.341	168	.659	255	483	.514	457	.486	940
Pan American	106	.252	315	.748	421	15	.484	16	.516	31	121	.268	331	.732	452
Rice	1514	.617	939	.383	2453	1334	.794	346	.206	1680	2848	.689	1285	.311	4133
Sam Houston State	408	.680	192	.320	600	108	.750	36	.250	144	516	.694	228	.306	744
San Antonio Public	927	.909	93	.091	1020	1514	.929	116	.071	1630	2441	.921	209	.079	2650
Southern Methodist	873	.489	911	.511	1784	339	.621	207	.379	546	1212	.520	1118	.480	2330
Southwest Texas State	353	.728	132	.272	485	74	.552	60	.448	134	427	.690	192	.310	619
Stephen F. Austin	502	.500	501	.500	1003	84	.564	65	.436	149	586	.509	566	.491	1152
Texas A&M	866	.279	2240	.721	3106	945	.148	5459	.852	6404	1811	.190	7699	.810	9510
Texas Christian	646	.469	731	.531	1377	497	.712	201	.288	698	1143	.551	932	.449	2075
Texas Southern	84	.700	36	.300	120	10	.455	12	.545	22	74	.662	48	.338	142
Texas State Library	3094	.820	680	.180	3774	77	.616	48	.384	125	3171	.813	728	.187	3899
Texas Tech	473	.361	838	.639	1311	1025	.690	460	.310	1485	1498	.536	1298	.464	2796
Texas Woman's Univ.	379	.366	656	.634	1035	323	.786	88	.214	411	702	.485	744	.515	1446
University of Houston	1010	.464	1168	.536	2178	544	.264	1514	.736	2058	1554	.367	2682	.633	4236
UT Arlington	759	.370	1295	.630	2054	309	.385	494	.615	803	1068	.374	1789	.626	2857
UT Austin	1871	.725	709	.275	2580	3314	.592	2286	.408	5600	5185	.634	2995	.366	8180
UT Dallas	282	.462	328	.538	610	1516	.936	104	.064	1620	1798	.806	432	.194	2230
UT El Paso	307	.533	269	.467	576	370	.538	318	.462	688	677	.536	587	.464	1264
UT Permian Basin	41	.281	105	.719	146	110	.965	4	.035	114	151	.581	109	.419	260
UT San Antonio	455	.850	80	.150	535	31	.525	28	.475	59	486	.818	108	.182	594
UT HSC Dallas	255	.175	1198	.825	1453	499	.123	3562	.877	4061	754	.137	4760	.863	5514
UT M.D. Anderson	230	.111	1841	.889	2071	39	.067	546	.933	585	269	.101	2387	.899	2656
UT Med. Br. Galveston	227	.169	1118	.831	1345	364	.131	2411	.869	2775	591	.143	3529	.857	4120
West Texas State	126	.299	295	.701	421	64	.296	152	.704	216	190	.298	447	.702	637
Totals	30756	.580	22282	.420	53038	25320	.508	24507	.492	49827	56176	.546	46689	.454	102865

BORROWING-LENDING RATIOS-(Chart 7)

Library	TIE					NON-TIE					Total Transactions				
	Borrowing	(%)	Lending	(%)	Total	Borrowing	(%)	Lending	(%)	Total	Borrowing	(%)	Lending	(%)	Total
Abilene Public	870	.415	1224	.585	2094	46	.086	491	.914	537	916	.348	1715	.652	2631
Amarillo Public	1165	.578	853	.422	2019	78	.096	738	.904	816	1244	.439	1591	.561	2835
Angelo State	297	.557	236	.443	533	25	.543	21	.457	46	322	.556	257	.444	579
Austin College	210	.302	485	.698	695	22	.232	73	.768	95	232	.294	558	.706	790
Austin Public	2776	.811	648	.189	3424	43	.039	1059	.961	1102	2819	.623	1707	.377	4526
Baylor	295	.339	576	.661	871	249	.356	451	.644	700	553	.352	1027	.654	1571
Dallas Public	3296	.609	2113	.391	5409	253	.120	1860	.880	2113	3549	.472	3973	.528	7522
East Texas State	1084	.855	184	.145	1268	262	.647	143	.353	405	1346	.805	327	.195	1673
El Paso Public	802	.543	674	.457	1476	62	.159	328	.841	390	864	.463	1002	.537	1866
Fort Worth Public	1992	.503	1969	.497	3961	148	.098	1361	.902	1509	2140	.391	3330	.609	5470
Houston Acad. of Med.	1516	.373	2547	.627	4063	925	.144	5515	.856	6440	2441	.232	8062	.768	10503
Houston Public	3895	.696	1698	.304	5593	101	.033	2977	.967	3078	3996	.461	4675	.539	8671
Lamar	480	.344	917	.656	1397	105	.159	556	.841	661	585	.284	1473	.716	2058
La Retama Public	3182	.747	1075	.253	4257	79	.069	1071	.931	1150	3261	.603	2146	.397	5407
Lubbock City-County	1744	.785	478	.215	2222	48	.122	346	.878	394	1792	.685	824	.315	2616
Midwestern	813	.841	154	.159	967	324	.866	50	.134	374	1137	.848	204	.152	1341
Pan American	595	1.000	-0-	.000	595	53	.946	3	.054	56	648	.995	3	.005	651
Rice	916	.247	2790	.753	3706	253	.114	1966	.886	2219	1169	.197	4756	.803	5925
Sam Houston State	433	.516	406	.484	839	143	.753	47	.247	190	576	.560	453	.440	1029
San Antonio Public	1652	.638	938	.362	2590	59	.036	1588	.964	1647	1711	.404	2526	.596	4237
Southern Methodist	811	.243	2523	.757	3334	188	.304	430	.696	618	999	.253	2953	.747	3952
Southwest Texas State	297	.455	356	.545	653	112	.636	64	.364	176	409	.493	420	.507	829
Stephen F. Austin	885	.625	530	.375	1415	291	.884	38	.116	329	1176	.674	568	.326	1744
Texas A&M	2467	.526	2224	.474	4691	1286	.131	8557	.869	9843	3753	.258	10781	.742	14534
Texas Christian	633	.242	1978	.758	2611	274	.295	656	.705	930	907	.256	2634	.744	3541
Texas Southern	145	.858	24	.142	169	-0-	.000	36	1.000	36	145	.707	60	.293	205
Texas State Library	3123	.280	8016	.720	11139	65	.439	83	.561	148	3188	.282	8099	.718	11287
Texas Tech	1239	.521	1139	.479	2378	1197	.604	786	.396	1983	2436	.559	1925	.441	4361
Texas Woman's Univ.	567	.319	1212	.681	1779	225	.319	481	.681	706	792	.319	1693	.681	2485
University of Houston	1251	.367	2157	.633	3408	336	.136	2129	.864	2465	1587	.270	4286	.730	5873
UT Arlington	1782	.490	1856	.510	3638	396	.388	625	.612	1021	2178	.467	2481	.533	4659
UT Austin	653	.153	3616	.847	4269	1915	.228	6484	.772	8399	2568	.203	10100	.797	12668
UT Dallas	804	.970	25	.030	829	1440	.889	180	.111	1620	2244	.916	205	.084	2449
UT El Paso	545	.667	272	.333	817	540	.689	244	.311	784	1085	.678	516	.322	1601
UT Permian Basin	227	1.000	-0-	.000	227	42	.339	82	.661	124	269	.766	82	.234	351
UT San Antonio	720	.941	45	.059	765	17	.270	46	.730	63	737	.890	91	.110	828
UT HSC Dallas	675	.303	1552	.697	2227	819	.152	4557	.848	5376	1494	.197	6109	.803	7603
UT M.D. Anderson	1662	.720	646	.280	2308	180	.290	440	.710	620	1842	.629	1086	.371	2928
UT Med. Br. Galveston	899	.565	693	.435	1592	806	.282	2056	.718	2862	1705	.383	2749	.617	4454
West Texas State	531	.884	70	.116	601	223	.652	119	.348	342	754	.800	189	.200	943
Total	47930	.495	48899	.505	96829	13630	.219	48737	.781	62367	61560	.387	97636	.613	159196

COMPARISON OF PUBLIC AND ACADEMIC LIBRARIES-(Chart 8)

Costs

LIBRARY	SUPPLIES	(%)	REQUESTS	(%)	POSTAGE	(%)	COURIER	(%)	SALARIES	(%)	TOTAL COSTS	TRANSACTIONS Total	Filled	COST-PER ITEM Total Transactions	Filled Transaction
Public Libraries	8724	.038	26702	.117	3434	.015	0	.000	189667	.830	228527	57068	30754	4.00	7.43
Academic Libraries	20332	.056	38609	.107	9335	.026	6244	.017	287445	.794	361965	100827	72111	3.59	5.02
All Libraries	29056	.049	65311	.111	12769	.022	6244	.011	477112	.808	590492	157895	102865	3.74	5.74

TIE-NON-TIE Transactions

	TIE	(%)	NON-TIE	(%)	TOTAL
Public Libraries	44184	.774	12884	.226	57068
Academic Libraries	53511	.517	50079	.483	103590
All Libraries	97695	.608	62963	.392	160658

Filled-Unfilled Transactions-TIE

	Borrowing Filled	(%)	Unfilled	(%)	Total	Lending Filled	(%)	Unfilled	(%)	Total	Total Filled	(%)	Unfilled	(%)	Total
Public Libraries	10441	.426	14057	.574	24498	7920	.402	11766	.598	19696	18361	.416	25823	.584	44184
Academic Libraries	15960	.681	7472	.319	23432	18717	.641	10496	.359	29213	34677	.659	17968	.341	52645
All Libraries	26401	.551	21529	.449	47930	26637	.545	22262	.455	48899	53038	.548	43791	.452	96829

Filled-Unfilled Transactions-NON-TIE

	Borrowing Filled	(%)	Unfilled	(%)	Total	Lending Filled	(%)	Unfilled	(%)	Total	Total Filled	(%)	Unfilled	(%)	Total
Public Libraries	929	.946	53	.054	982	11464	.963	438	.037	11902	12939	.958	563	.042	13502
Academic Libraries	9319	.737	3329	.263	12648	28115	.763	8720	.237	36835	36888	.755	11977	.245	48865
All Libraries	10248	.752	3382	.248	13630	39579	.812	9158	.188	48737	49827	.799	12540	.201	62367

Filled-Unfilled Transactions-All Transactions

	Borrowing Filled	(%)	Unfilled	(%)	Total	Lending Filled	(%)	Unfilled	(%)	Total	Total Filled	(%)	Unfilled	(%)	Total
Public Libraries	11370	.446	14110	.554	25480	19384	.614	12204	.386	31588	30754	.539	26314	.461	57068
Academic Libraries	25279	.701	10801	.299	36080	46832	.709	19216	.291	66048	72111	.706	30017	.294	102128
All Libraries	36649	.595	24911	.404	61560	66216	.678	31420	.322	97636	102865	.646	56331	.354	159196

COMPARISON OF PUBLIC AND ACADEMIC LIBRARIES--(Cont.)

Books-Photocopy

	TIE				Non-TIE					Total				
	Books	(%)	Photocopy	(%)	Total	Books	(%)	Photocopy	(%)	Total	Books	(%)	Photocopy	(%)	Total
Public Libraries	16018	.872	2343	.128	18361	11132	.898	1261	.102	12393	27150	.883	3604	.117	30754
Academic Libraries	14738	.425	19939	.575	34677	14188	.379	23246	.621	37434	29026	.403	43085	.597	72111
All Libraries	30756	.580	22282	.420	53038	25320	.508	24507	.492	49827	56176	.546	46689	.454	102865

Borrowing-Lending Ratios

	TIE					Non-TIE					Total				
	Borrowing	(%)	Lending	(%)	Total	Borrowing	(%)	Lending	(%)	Total	Borrowing	(%)	Lending	(%)	Total
Public Libraries	24498	.554	19686	.446	44184	982	.076	11902	.924	12884	25480	.446	31588	.554	57068
Academic Libraries	23432	.445	29213	.555	52645	12648	.256	36835	.744	49483	36080	.353	66048	.647	102128
All Libraries	47930	.495	48899	.505	96829	13630	.219	48737	.781	62367	61560	.387	97636	.613	159156

IV. Summary of Findings

Excluding the five TIE members not represented in the study, there were 157,895 interlibrary loan transactions in the six-month period of the study. Academic libraries accounted for 100,827 of these, public libraries for 57,068.

A total of $590,492 was spent in interlibrary loan activity. Academic libraries spent $361,965, public libraries $228,527.

The average cost per transaction was as follows:

	All Transactions	Filled Transactions Only
Public Libraries	4.00	7.43
Academic Libraries	3.59	5.02
All Libraries	3.74	5.74

The average percentage for each of the cost elements studied was as follows:

	All Libraries	Public Libraries	Academic Libraries
Supplies	5%	4%	6%
Transmission of and Response to requests	11%	12%	11%
Postage	2%	2%	3%
Courier	1%	0%	2%
Salaries	81%	83%	79%

The average percentage of TIE versus NON-TIE transactions was:

	TIE	NON-TIE
Public Libraries	77%	23%
Academic Libraries	52%	48%
All Libraries	61%	39%

The average percentage of filled versus unfilled transactions was:

	Filled	Unfilled
Public Libraries	54%	46%
Academic Libraries	71%	29%
All Libraries	65%	35%

The average percentage of loans versus photocopy was;

	Loans	Photocopy
Public Libraries	88	12
Academic Libraries	40	60
All Libraries	55	45

The average percentage of borrowing versus lending was:

	Borrowing	Lending
Public Libraries	45	55
Academic Libraries	35	65
All Libraries	39	61

It is not the intention of the Cost-Study Committee to instruct library administrators overmuch in interpreting these statistics. A few comments, however, are in order. First, there is a minimum level of cost, especially in the areas of communications equipment and salaries, that is incurred regardless of the volume of interlibrary loan activity. Above this minimum, costs vary according to the volume of activity. A higher volume reduces the per-transaction cost; a lower volume increases it. Whatever the per-transaction cost, interlibrary loan service is extremely valuable to an institution's research program. Second, longevity in an interlibrary loan position increases the per-transaction cost, but should also improve the quality of the service. The same could also be said with regard to the amount of a professional's time given to interlibrary loan. Third, high as the per-transaction costs may seem, they are not nearly as high as the cost of buying the material requested and processing it into the collection. In those instances where the item requested is not within the scope of the library's collection development program, interlibrary loan is a real saving.

V. Suggestions for Further Study

Useful information could be gained by analyzing the pattern of activity within the network. The analysis could be based upon the fiscal agent's six-month report. It would measure the interrelationships among the TIE members, showing how much each member borrows and lends to all other members. Of particular interest in such an analysis would be the activity between academic and public libraries and between larger and smaller libraries.

A study of the impact of the Texas Numeric Register (TNR) on interlibrary loan activity would also be useful. Such a study might reveal the extent to which the TNR has redistributed the burden of activity among the membership, and it might indicate how effective the TNR has been in increasing the efficiency of interlibrary loan requesting.

A study of turnaround time (the time period between the communication of a request and the receipt of the requested item) both within and outside of TIE would also be useful.

A study of the level of staffing in interlibrary loan; that is, the amount of professional, paraprofessional, clerical and student assistant time given to interlibrary loan, would be useful.

A study could also be done to ascertain the applicability of the Westat study of interlibrary loan among the members of the association of Research Libraries. The study was far more comprehensive than our study; it measured the amounts of time required to perform the various interlibrary loan tasks such as verification, location, communication of requests, etc. If the knowledge gained by the Westat study is widely transferable to the Texas Information Exchange, then a need for a huge amount of self-study on our part is eliminated.

A study of the impact of the Amigos Bibliographic Network on TIE might also be useful. The OCLC data base used by AMIGOS is being used for location information, and the OCLC interlibrary loan subsystem is now being tested. Implications for TIE would surely be of interest to the membership.